



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/015,222	12/10/2001	Avraham Kedem	U013768-7	1001
140	7590	10/19/2004		
LADAS & PARRY 26 WEST 61ST STREET NEW YORK, NY 10023			EXAMINER BHAT, NINA NMN	
			ART UNIT	PAPER NUMBER
			1764	

DATE MAILED: 10/19/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No. 10/015,222	Applicant(s) KEDEM ET AL.	
	Examiner N. Bhat	Art Unit 1764	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
 - If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
 - If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
 - Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 09 September 2004.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-35 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-35 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| Paper No(s)/Mail Date <u>9-9-04</u> . | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

1. Claims 1-35 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. Claim 1, is unduly broad, and the claims would read on naturally occurring events, i.e., the sun shining, wind blowing across the ocean, stream, brook, bay, pond, lake etc. which will hit rocks or cliffs or any formation in the ocean, lake, pond, brook, stream wherein the water wets the rock formation and then by the sunlight and heats the water evaporates the liquid. The examiner fully realizes that applicant can have a broad claims but the claims as written will read on naturally occurring processes and in order to advance prosecution applicant is strongly suggested to amend the claims closer to what applicant thinks is his invention, i.e., applicant should look at his figures and draft the claims accordingly. With respect to 32-35, it is unclear what applicant means by a "kit" comprising at least one evaporation device, how is the kit different than the apparatus? Usually, in US PTO practice, a kit is a boxed or packaged article, which includes many apparatus or vials, test strips, instructions that is package to perform a task or process. For example, a pregnancy test kit, includes the test strip, could include a receptacle to collect a urine sample, directions. It is unclear what applicant means by Kit with this evaporation device, it appears that the evaporation device is packaged, there is no packaging claimed so the claim reads on the evaporation device. Suitable explanation and/or correction is required. Claims 1-35 are rejected under 35 U.S.C. 112, second paragraph, as being incomplete for omitting essential structural cooperative relationships of elements, such

Art Unit: 1764

omission amounting to a gap between the necessary structural connections. See MPEP § 2172.01. The omitted structural cooperative relationships are: between the evaporation device, the porous fabric, the evaporation surface, the evaporation elements, the structure for the evaporator so that it floats, the ballast chamber, the air compressor, the wind vane etc. In claim 9, the means comprising an anemometer type apparatus lacks its function. Further, applicant is strongly suggested to avoid "something-type", i.e., anemometer-type language as it unclear what is meant by "type". Applicant should draft the claim in clear, positive, meaningful language.

2. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

3. Claims 1-2, 10, 11, 12-15, 18, 20-21, 28 and 32-35 are rejected under 35 U.S.C. 102(b) as being anticipated by GB 2 330 779.

GB 2 330 779 teach a process and apparatus for the desalination of salt water comprising feed a web of water absorbent material, (fabric) through a body of brackish water into an air space above the body of water. the stream of air is directed over the web to evaporate therefrom. The water containing air stream is directed to a

Art Unit: 1764

condensation space where the desalinated water is condensed from the water absorbent material. With respect to applicant's kit claims, the recitation of kit is not given any patentable weight as explained in the 112, second paragraph rejection and the claims are construed and examined as an evaporation device only since the claims as drafted do not impart any structure or elements which would provide a kit. GB 2 330 779 fully anticipates applicant's claims as recited above. [Note the abstract, Page 5, lines 14-22, Page 8, lines 16-24]

4. Claims 1-2, 10, 11, 12-15, 18, 20 rejected under 35 U.S.C. 102(e) as being anticipated by Takayasu.

Takayasu teach a method and apparatus for producing natural salt or fresh water by treating sea water wherein the apparatus includes a arranging net or cloth at one stage or a plurality of stages in a midway of a flow to the evaporated components and adhering the salt components on to the net or the cloth when the evaporated water components pass through the net or the cloth.[Note the abstract]. Specifically the apparatus includes means for treating sea water for producing salt by atomizing sea water by rotating a centrifugal generator, to spray and atomize the seawater, and evaporating the water component to crystallize the salt by blowing warm wind towards one or more stages including a net or cloth which are permits the salt component to adhere to the net and cloth while water passes through the net and the cloth. The Warm wind is blown across the sea water which provides an atomization of the sea water deposits a fine mist of sea water onto the cloths where evaporation of the water component is expedited by thermal energy and wind and natural salt can inexpensively

Art Unit: 1764

produced and distilled water is recovered.[Note Column 1, lines 50-65 and Column 2, lines 4-48 and Column 8. lines 54 et seq.]

5. Claims 1-6, 10, 12 and 17 are rejected under 35 U.S.C. 102(b) as being anticipated by Kemper.

Kemper teaches evaporation accelerator, which has a base with a housing rotatably affixed and float, means to float the device on the surface of water such as a lake, pond, tank, etc. Kemper teaches that the fluid passes through the scoop means as the scoop rotates to a fluids surface and scatters the water into droplets which falls back on the fluid surface and in the process of being converted into droplets and falling a portion of the fluid is exposed to the atmosphere which would not other be exposed which accelerates evaporation. The evaporation device of Kemper provides a surface for evaporation form a surface of a body of liquid in an outdoor environment wherein the evaporation elements is free of external enclosures surrounds the evaporation element which is includes a wettable surface which when wetted, the wind will permit evaporation of the wettable surface to evaporate the liquid from the surface.

6. Claims 1-2, 10, 11, 12-15, 18, 20-21 and 28 are rejected under 35 U.S.C. 102(b) as being anticipated by Assaf.

Assaf teach a method of evaporating a liquid from a solution. The apparatus includes means to provide a seawater or brine water which is pumped to the surface such that the brine water is sprayed into a gaseous medium or can be carried out in the an open air environment wherein the prevailing wind provides a motive force for the air to pass the water and form a shower which is contacted with a matrix, wherein heat and

Art Unit: 1764

vapor transfer takes place and The efficiency of t the evaporation process or the rate at which the brine solution is applied to the matrix is related to the wind speed, the stronger the wind, the higher will be the rate of evaporation and the rate of spraying will be modified based on the wind speed. Assaf teaches incorporating a wind speed sensor to modulate the valve, which connects to the reservoir of brine thus providing and anticipating applicant's evaporation device using wind to increase the rate of evaporation from an outdoor source such as a pond.

7. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

8. The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

Claims 7-9, 16, 19 and 22-27 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kemper in combination with Assaf.

Kemper teaches a floatable evaporation device, which can be placed on the surface of a pond, stream, or tank which include means to, accelerated the evaporation of the liquid. Kemper discloses the invention substantially as claimed for reasons

Art Unit: 1764

delineated above but does not disclose the particulars with respect to applicant's claims which include a wind vane and that the evaporation surface is of a corrugated shape etc.

Assaf teach using wind powder as well as a plurality of surface elements wherein the wind as well as spray means are provided which spray the brine water over a matrix which can includes water absorbent pads, matted jute or other fibrous material, with randomly crossing filaments, which are in the form of a plurality of plane criss-crossed nets of thin filaments of jute or solid plastic which when contacted with the spray of liquid and wind provides a thin film evaporating surface which will concentrate the liquid when exposed to the evaporation surface.

It would have been obvious to one having ordinary skill in the art at the time the invention was made to provide applicant's particular limitations regarding the evaporating surface being corrugated, the wind directing means, moving means so that the evaporating means are oriented perpendicular to the surface because, these limitations are specific and well known parameter necessary for providing a floatable evaporating device. On having ordinary skill in the art familiar with providing a buoyant evaporating device which is dependent on weather conditions, wind conditions, and other types of orientation are obvious design choice parameters which have been discussed by the prior art and are well known design limitation when providing an evaporating device. With respect to providing a corrugated evaporating surface would have been well known to the ordinary artisan familiar with heat, mass and momentum transfer as the corrugated evaporating surface provides more surface area for contact,


Art Unit: 1764

evaporation, condensation etc. thus an obvious expedient. It is maintained that the prior art fairly suggests and provides an evaporation device rendering applicant's invention as a whole obvious to one having ordinary skill in the art.

9. Any inquiry concerning this communication or earlier communications from the examiner should be directed to N. Bhat whose telephone number is 571-272-1397. The examiner can normally be reached on Monday-Friday, 9:30AM-6:00PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Glenn Caldarola can be reached on 571-272-1444. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).


N. Bhat
Primary Examiner
Art Unit 1764